

IN UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No.: 7,103,347 B2 Docket No: ATT/1999-0674CON
Issue Date: September 5, 2006 Patentee: Chow et al.
Serial No.: 10/657,542 Filed: September 8, 2003
Title AUTOMATIC WIRELESS SERVICE ACTIVATION IN A PRIVATE LOCAL
WIRELESS SYSTEM

REQUEST FOR CERTIFICATE OF CORRECTION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

It is requested that a Certificate of Correction of Patent Office mistake be issued correcting errors appearing in the above-identified United States Patent. The text of the Certificate in the suggested form is enclosed. In support of Patentees' request, Patentees refer the Office to the above-identified patent, Column 1, PRIORITY APPLICATION, to the Utility Patent Application Transmittal, item 18, and to the filing receipt for this application which are attached hereto.

Patentees do not believe that any fee is due in connection with issuance of the Certificate of Correction. In the event Patentees are incorrect, the Commissioner is authorized to charge counsel's Deposit Account No. 50-4802/ATT1999-0674CON for the fee due.

Issuance of the Certificate of Correction would neither expand nor contract the scope of the claims as properly allowed, and re-examination is not required.

Respectfully Submitted

Date: 11/9/10

By: _____


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UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTIONPage 1 of 1

PATENT NO. : 7,103,347 B2

APPLICATION NO.: 10/657,542

ISSUE DATE : September 5, 2006

INVENTOR(S) : Chow et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Title page, add Item (63), Related U.S. Application Data, as follows:

--Continuation of application No. 09/612,802, filed Jul. 10, 2000, now Pat. No. 6,643,504.--

MAILING ADDRESS OF SENDER (Please do not use customer number below):

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This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon individual circumstances. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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**AUTOMATIC WIRELESS SERVICE
ACTIVATION IN A PRIVATE LOCAL
WIRELESS SYSTEM**

PRIORITY APPLICATION

The present application claims priority to U.S. patent application Ser. No. 09/612,802 filed Jul. 10, 2000, the contents of which are incorporated herein by reference.

FIELD OF THE INVENTION

This invention addresses the problem of activating service for a wireless telephone in a wireless system other than the normal home system of that wireless telephone or a system that might grant access as a roaming type activation. In a particular aspect it concerns activation of a wireless telephone to operate in a local or secondary system, overlapped by a macro or primary system. Activation in a private or secondary wireless system for a permanent or a limited-time duration is considered. It specifically relates to first time activation of digital wireless/mobile telephones. A method of using a wireless handset's automatic activation features for obtaining service on such a wireless system is described. In one particular aspect, the invention addresses provisioning of service to in-building/campus wireless users in accord/compliance with pre-existing standards. The wireless system may be cellular, FCN, PCS, or a similar mobile radio system.

BACKGROUND

A wireless telephone typically needs to be activated before it can operate in a particular wireless system. Normally this process is required only once since subsequent uses of the wireless telephone in that system is already authorized. Access in different systems is generally covered by roaming procedures allowing use of the wireless telephone as it moves to another system. This granting of use permission is dependent upon agreements between different systems and access to databases to verify the legitimacy of the wireless telephone operating out of its home territory. There are a large number of localized and/or private wireless systems which are not part of arrangements permitting roaming and may not operate within a territory already covered or overlaid by other carriers including, the home carrier of a wireless telephone seeking use of a localized and/or private wireless system. Such localized and/or private wireless systems operate at low signal levels compared to outdoor macrocell systems. These localized and/or private systems are frequently found within buildings and on campus sites.

TIA/EIA-136, a cellular standard covering digital cellular TDMA systems, explicitly provides for providing service to private user communities. Service is granted by means of a Private System IDentification (PSID) code entered into each wireless telephone requesting service from the private/local wireless system. This PSID code must be entered into the handset which is requesting service. The process is elementary but it is not simple in real economic terms. For example to insert the PSID into the wireless telephone manually is elementary and at the same time both inefficient and costly especially in the circumstance of initially providing service to a 'large' number of users. Even on an occasional basis a structured entry process requiring experienced human intervention must still be maintained. This procedure must

include decisions regarding control over duration of registry and extent of use privileges offered.

Service provisioning, by over-the-air downloading of required information, is available on many macrocellular cellular/wireless systems of public carriers. In one cellular system a telephone number and System ID (SID) code is assigned and downloaded to a wireless/cellular telephone and the user enters the related information in response to a visually presented operation menu provided by the wireless telephone. The registration is completed with a specific sequence of steps which include searching a range of digital macrocellular RF control channels; latching on to the strongest control channel received; and then installing activation and authentication information into the wireless telephone over the air.

The key to this automatic setup procedure, in part, is the ability of the wireless/cellular phone to preferentially seek (i.e., tune-in to) the strongest macrocellular setup channel in the locality. This complicates the desire for automatic setup procedures for private and local wireless/cellular systems. The first obstacle is the relatively high signal level of the macrocellular system compared to the private/local/system. The relatively high signal level of the macrocellular system overrides any setup channel of the private/local system rendering it impossible for the wireless telephone to latch onto the local/private system.

At present there is no way of automatically provisioning a wireless/mobile digital phone (e.g., digital cellular telephone) to a secondary wireless communication system in an area radiated by a more powerful dominant wireless communication system (i.e., a macrocellular system). The macrocellular signal strength overrides any provisioning signal provided by the secondary system.

SUMMARY OF THE INVENTION

A method and apparatus is provided permitting individual wireless telephones (i.e., cellular) use of the wireless telephone's inherent downloading capability to permit automatic activation to achieve registration and activation to a secondary (i.e., private) wireless communication system (e.g., cellular system) by downloading directly into the wireless telephone the necessary system information.

Automatic activation (i.e., first time access) of digital wireless/cellular mobile telephones with a private/localized wireless/cellular system (i.e., a secondary system) occurs, in accord with the invention, within an area having an overlapping macrocellular primary wireless communication system (i.e., a dominant system). Operation of the secondary access procedure, to register and receive service from the secondary system, is achieved by shielding/masking an access and authentication process for the secondary system from interference from the control signal levels of the dominant wireless communication system. During the first time access, the secondary system is supplied with PSID and MN and ESN numbers needed for authentication and resultant access.

In particular the process requires masking only during the authentication and access processing allowing the application of shielding/masking for this process only. In one masking arrangement the antenna for the secondary system used for access and authentication procedures radiates a control channel signal that exceeds a radiation level of the dominant system control channel only within a very short distance from an access antenna of the secondary system. For example, in some situations, this distance is about an inch or less. Hence when the wireless telephone is within

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UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

- Fee Transmittal Form (e.g., PTO/SB/17)
(Submit an original and a duplicate for fee processing)
Applicant claims small entity status.
See 37 CFR 1.27.
- Specification [Total Pages 20] (preferred arrangement set forth below)
 - Descriptive title of the invention
 - Cross Reference to Related Applications
 - Statement Regarding Sponsored R & D
 - Background of the invention, a table, or a computer program listing, an appendix
 - Background of the Invention
 - Brief Summary of the Invention
 - Brief Description of the Drawings (if filed)
 - Detailed Description
 - Claim(s)
 - Abstract of the Disclosure
- Drawing(s) (35 U.S.C. 113) [Total Sheets 8]
- Oath or Declaration [Total Sheets 4]
 - a. Newly executed (original or copy)
 - b. Copy from a prior application (37 CFR 1.63(d)) (for continuation/divisional with Box 18 completed)
 - i. **DELETION OF INVENTOR(S)**
Signed statement attached deleting inventor(s) name in the prior application. see 37 CFR 1.63(d)(2) and 1.33(b).
 - c. Application Data Sheet. See 37 CFR 1.76

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76:

Continuation Divisional Continuation-in-part (CIP) of prior application No.: 09/612,802

Prior application Information:

Examiner: T. Trinh

Art Unit: 2684

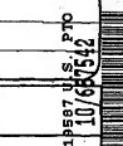
For CONTINUATION or DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 18, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

19. CORRESPONDENCE ADDRESS

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Name (Print/Type)	Thomas M. Isaacson	Registration No. (Attorney/Agent)	44166
Signature	<u>Thomas M. Isaacson</u>		
		Date	9/8/03

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APPL NO.	FILING OR 371 (O) DATE	ART UNIT	FIL FEE REC'D	ATTY.DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/657,542	09/08/2003	2681	750	1999-0674Con	8	20	3

CONFIRMATION NO. 9892

26652
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FILING RECEIPT



OC000000011433383

Date Mailed: 12/10/2003

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-746-9195. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

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Domestic Priority data as claimed by applicant

This application is a CON of 09/612,802 filed 07/02/2000 PAT 6,643,504

Foreign Applications

If Required, Foreign Filing License Granted: 12/05/2003

Projected Publication Date: 03/18/2004

Non-Publication Request: No

Early Publication Request: No

Title